

AMENDMENTS TO THE CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made.

1. **(Previously Presented)** A method for coupling a surface-oriented optoelectronic component to an end face of an optical fiber, comprising:

arranging the fiber at a holding point a predetermined distance from the end face in such a way that the end face can perform a pivoting movement about the holding point; and

bringing the end face of the fiber and the component close to one another in the context of a coarse adjustment in such a way that a fine adjustment is subsequently effected between the component and the fiber in the context of an automatic self-centering by pivoting the fiber about the holding point.

2. **(Previously Presented)** The method as claimed in claim 1, further comprising:

providing a projecting structure arranged rotationally symmetrically with respect to an optically active zone of the component;

wetting the end face of the fiber or the projecting structure of the component with a transparent adhesive; and

bringing close together the component and the fiber in such a way that the adhesive propagates between the end face of the fiber and the projecting structure, thereby bringing about a self-centering of the fiber relative to the component.

3. **(Previously Presented)** The method as claimed in claim 2, further comprising, after the self-centering, curing of the adhesive for the purpose of fixing the centered arrangement between the fiber and the projecting section.

4. **(Previously Presented)** The method as claimed in claim 1, further comprising fixing the component in a housing prior to subjecting the end face of the fiber to coarse adjustment relative to the component fixed in the housing.

5. **(Original)** The method as claimed in claim 4, wherein the component is contact-connected after being fixed in the housing and the coarse adjustment of the end face of the fiber is effected relative to the component which has been fixed in the housing and contact-connected.

6. **(Currently Amended)** The method as claimed in claim 1, further comprising fitting a strain relief device to a housing that receives ~~the~~ the fiber to couple to the component.

7. **(Previously Presented)** The method as claimed in claim 6, wherein the strain relief device comprises a ferrule fixed to the housing and to the fiber.

8. **(Previously Presented)** The method as claimed in claim 7, further comprising pushing the ferrule onto the fiber before the coarse adjustment.

9. **(Previously Presented)** The method as claimed in claim 8, wherein the ferrule is pushed into a region of the ferrule which lies outside a pivoting range of the fiber delimited by the end face of the fiber and the holding point.

10. **(Previously Presented)** The method as claimed in claim 7, wherein the ferrule is pushed onto the fiber at an end of the fiber which is remote from the end face after the fiber has been self-centered relative to the component and the fiber has been fixed to the component.

11. **(Original)** The method as claimed in claim 7, wherein the ferrule is adhesively bonded both to the fiber and to the housing.

12. **(Previously Presented)** The method as claimed in claim 1, wherein, after the fiber has been fixed to the component, fitting a coupling device to or forming the coupling device at that end of the fiber which is remote from the end face.

13. **(Previously Presented)** The method as claimed in claim 12, wherein the coupling device comprises a receptacle or a fiber pigtail.

14. **(Previously Presented)** The method as claimed in claim 4, further comprising:

forming a passage hole in a carrier of the housing;

fixing the component on a side of the carrier in such a way that the optically active zone of the component faces the passage hole; and

directing the fiber through the passage hole for the coarse adjustment thereof.

15. **(Previously Presented)** The method as claimed in claim 14, further comprising:

electrically connecting electrical connections of the component to conductor tracks present on the carrier, wherein

the electrical connections reside in a region associated with the passage hole and the conductor tracks projecting into the region of the passage hole.

16. **(Original)** The method as claimed in claim 2, wherein the diameter of the projecting structure is chosen to have exactly the same magnitude as the diameter of the fiber.

17. **(Previously Presented)** The method as claimed in claim 2, wherein a position of the projecting structure and a position of the optically active zone of the component are defined in the context of one and the same lithography step.

18. **(Previously Presented)** The method as claimed in claim 1, wherein the surface-oriented optoelectronic component comprises a VCSEL laser diode, an LED or a photodiode, and is coupled to the fiber.

19. **(Current Amended)** The method as claimed in claim 1, wherein, ~~in the manner described~~, one component is connected to one end of the fiber and a further component is connected to the other end of the fiber.

20. **(Withdrawn)** An apparatus for coupling a surface-oriented optoelectronic component to an optical fiber, comprising:

a baseplate for holding the component; and

a holding element configured to hold the component at a predetermined distance from the baseplate,

the holding element serving to hold the fiber and enabling a pivotable movement of the fiber in a pivoting range of the fiber delimited by the end face of the fiber and the holding point above the baseplate.

21. **(Withdrawn)** An optoelectronic module having a surface-oriented optoelectronic component, having an optical fiber and having a housing, wherein

the housing comprises a carrier with a passage hole,

the component being fixed on a side of the carrier in such a way that an active zone of the component faces the passage hole, and wherein

the fiber extends through the passage hole and couples to the component, and wherein electrical connections associated with the component are electrically connected to conductor tracks present on the carrier, and wherein

the electrical connections of the component reside in the region of the passage hole and the conductor tracks project into the region of the passage hole to form a suspension for the component.